

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An electromagnetic electroacoustic transducer, comprising:
a diaphragm made of a magnetic material;
a magnet for generating a magnetostatic field to make the magnetostatic field act on the diaphragm;
an electromagnetic coil for generating an oscillating magnetic field corresponding to an electric signal to make the oscillating magnetic field act on the diaphragm; ~~and~~
a casing for storing the diaphragm, the magnet and the electromagnetic coil therein; and
a lead terminal connected to a coil terminal of the electromagnetic coil,
wherein the case has at least one first sound emitting hole through which a front space on a front surface of the diaphragm in the casing communicates with a front outer space in front of the casing and at least one second sound emitting hole through which a rear space on a rear surface of the diaphragm in the casing communicates with the front outer space in front of the casing through a space provided to a portion at which the lead terminal and the coil terminal are connected; and
a resonant frequency $Fv2$ of the rear space is set at a value in the range:
$$F0 < Fv2 \leq Fv1$$

in which $F0$ is a resonant frequency of the diaphragm, and $Fv1$ is a resonant frequency of the front space.

2. (original): The electromagnetic electroacoustic transducer according to claim 1, wherein the resonant frequency Fv2 and the resonant frequency F0 have the relation:

$$Fv2 \geq 1.2 \times F0$$

3. (original): The electromagnetic electroacoustic transducer according to claim 1, wherein the resonant frequency Fv2 is set at a value near a frequency equal to an integral multiple of the resonant frequency F0.

4. (currently amended): ~~The~~ An electromagnetic electroacoustic transducer ~~according to claim 1, wherein~~ comprising:

a diaphragm made of a magnetic material;

a magnet for generating a magnetostatic field to make the magnetostatic field act on the diaphragm;

an electromagnetic coil for generating an oscillating magnetic field corresponding to an electric signal to make the magnetic field corresponding to an electric signal to make the oscillating magnetic field act on the diaphragm; and

a casing for storing the diaphragm, the magnet and the electromagnetic coil therein,

wherein the case has at least one first sound emitting hole through which a front space on a front surface of the diaphragm in the casing communicates with a front outer space in front of the casing and at least one second sound emitting hole through which a rear space on a rear

surface of the diaphragm in the casing communicates with the front outer space in front of the casing, and

a resonant frequency Fv2 of the rear space is set at a value in the range:

$$\underline{F0 < Fv2 \leq Fv1}$$

in which F0 is a resonant frequency of the diaphragm, and Fv1 is a resonant frequency of the front space,

the resonant frequency Fv1 is set at a value near a frequency three times as high as the resonant frequency F0; and

the resonant frequency Fv2 is set at a value near a frequency twice as high as the resonant frequency F0.

5. (new): The electromagnetic electroacoustic transducer according to claim 1, wherein the space provided to the portion at which the lead terminal and the coil terminal are connected is provided to a corner portion of the casing.